

While all the chronic disease objectives are important, the HNC 2020 experts selected this objective as the key performance indicator for this focus area because it is a leading cause of mortality in the state.^{c,12}

Rationale for target (refer to data grid): North Carolina made substantial progress in reducing the CVD mortality rate from 1999-2008, decreasing it from 363.1 to 256.6 deaths per 100,000 population. If North Carolina continues its pace from 1999-2008 through to the year 2020, the cardiovascular disease mortality rate will decline to 161.5 deaths per 100,000 population. Using the best state's value (Minnesota at 190.1 deaths per 100,000 population) was deemed not aspirational enough for North Carolina's 2020 target given the reduction seen from 1999-2008. Minnesota was also the best-performing state during this time, but its percentage improvement was determined to be too aspirational for North Carolina, yielding a 2020 target of 135.6 deaths per 100,000 population. Therefore, the HNC 2020 experts elected to set the 2020 target for this objective by applying North Carolina's pace from 1999-2008 out to 2020. This resulted in a 2020 target of 161.5 deaths per 100,000 population. The HNC 2020 experts felt that maintaining this pace will be a challenge, and therefore aspirational, but achievable given the state's proven past success in reducing the CVD mortality rate.

OBJECTIVE 2: REDUCE THE PERCENTAGE OF ADULTS WITH DIABETES TO 8.6%

Rationale for selection: Diabetes is caused by the body's inability to use or recognize insulin, a hormone needed to metabolize blood glucose. This inability causes an elevation in blood glucose levels.¹³ Diabetes can lead to complications such as heart disease, stroke, high blood pressure, blindness, kidney disease, neuropathy (nerve damage), gum disease, and depression. Heart disease or stroke is the cause of death for 65% of people with diabetes. Seventy percent of people with diabetes have high blood pressure.¹⁴ In 2008, more than one million people in North Carolina had pre-diabetes, undiagnosed diabetes, or diagnosed diabetes.¹⁵ Diabetes was the 7th leading cause of death in North Carolina in 2009.⁹ In 2009, 9.6% of adults reported they had diabetes.¹⁶

Roughly 5% of all diabetes cases are type 1, formerly called insulin-dependent diabetes or juvenile onset diabetes. However, the vast majority of people (90-95%) with diagnosed diabetes have type 2 diabetes, formerly called adult onset diabetes.^d Type 1 diabetes cannot be prevented, but secondary and tertiary prevention are important.¹⁷ On the other hand, type 2 diabetes can be prevented. Among the modifiable risk factors for type 2 diabetes are being overweight or obese and being physically inactive.¹³ Moderate weight loss and exercise have been shown to prevent or delay type 2 diabetes among adults at high risk of diabetes. A federally funded study of high-risk individuals showed that the onset of type 2 diabetes can be delayed or even possibly prevented by making changes to diet, losing and maintaining a 5% to 7% reduction of total body weight, and exercising 150 minutes weekly. These changes reduced the risk of getting diabetes by 58%.¹⁸ Thus, the focus of this objective is to reduce the prevalence of type 2 diabetes, which can be prevented by addressing modifiable risk factors through lifestyle changes such as getting adequate physical activity, eating a healthy diet, and achieving and maintaining a healthy weight.

Rationale for target (refer to data grid): From 1999-2009, North Carolina demonstrated an increase in the percentage of adults with diabetes from 6.1% to 9.6%.^e Implementing strategies to reduce obesity may contribute to reductions in the diabetes rate, but even with supporting prevention strategies, reversing this overall trend and reducing the diabetes rate will be challenging. However, maintaining North Carolina's current pace, which would lead to an increase in the percentage of people with diabetes, is not an ideal public health goal. For a similar reason, using the best-performing state, which also had an increase in the percent

c At the time the key performance indicator was selected, heart disease was the leading cause of death in the state. It recently became the second leading cause of death, being surpassed by cancer.

d Gestational diabetes is another type of diabetes. It occurs during pregnancy.

e The data used for this objective do not include gestational diabetes.